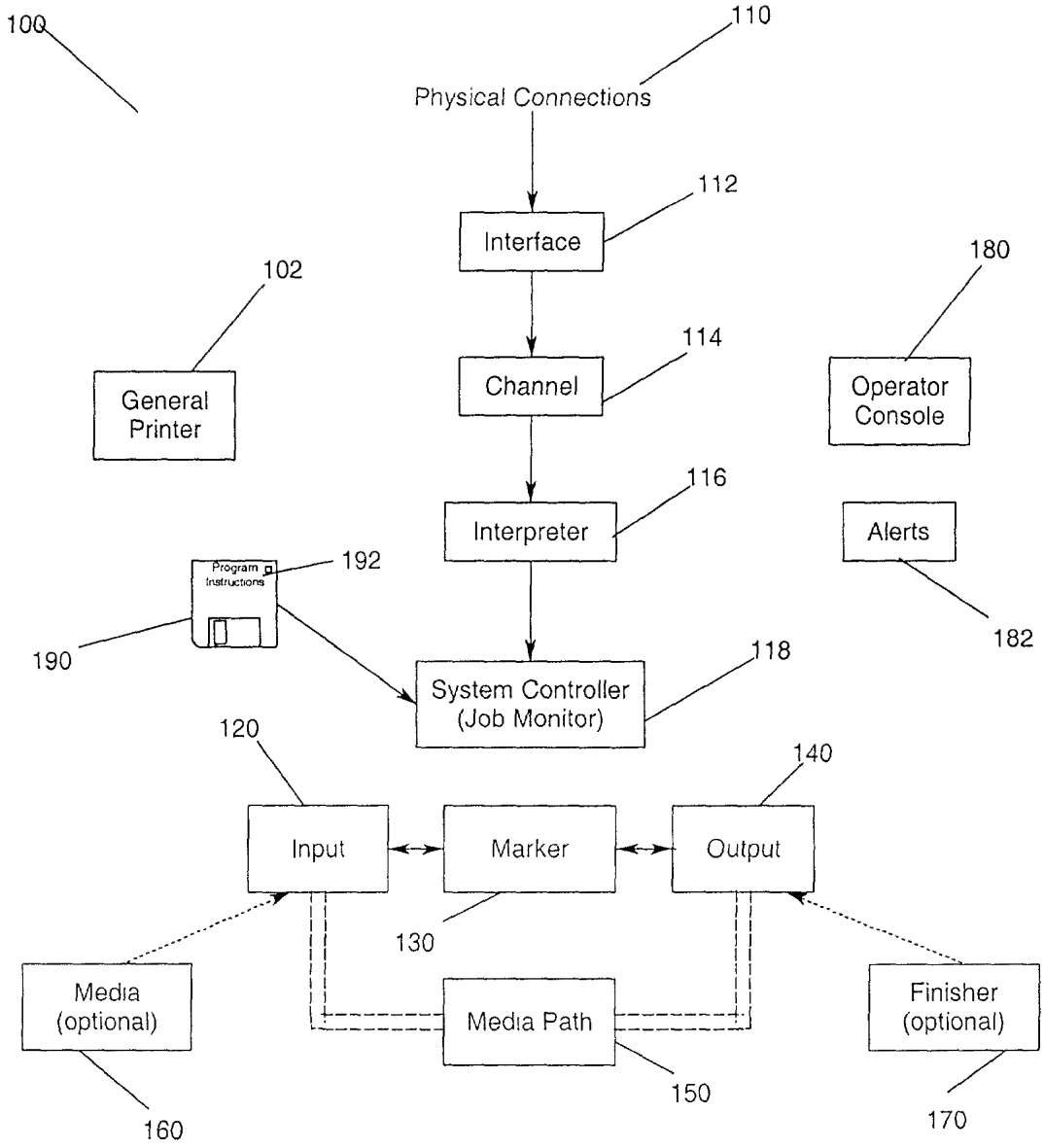

100
110
Physical Connections
112
Interface
102
General Printer
180
Operator Console
114
Channel
116
Interpreter
Alerts
192
Program Instructions
190
182
118
System Controller (Job Monitor)
120
140
Input
Marker
Output
130
Media (optional)
Media Path
Finisher (optional)
150
160
170

Fig. 1

TOSOTO" 02/05/60

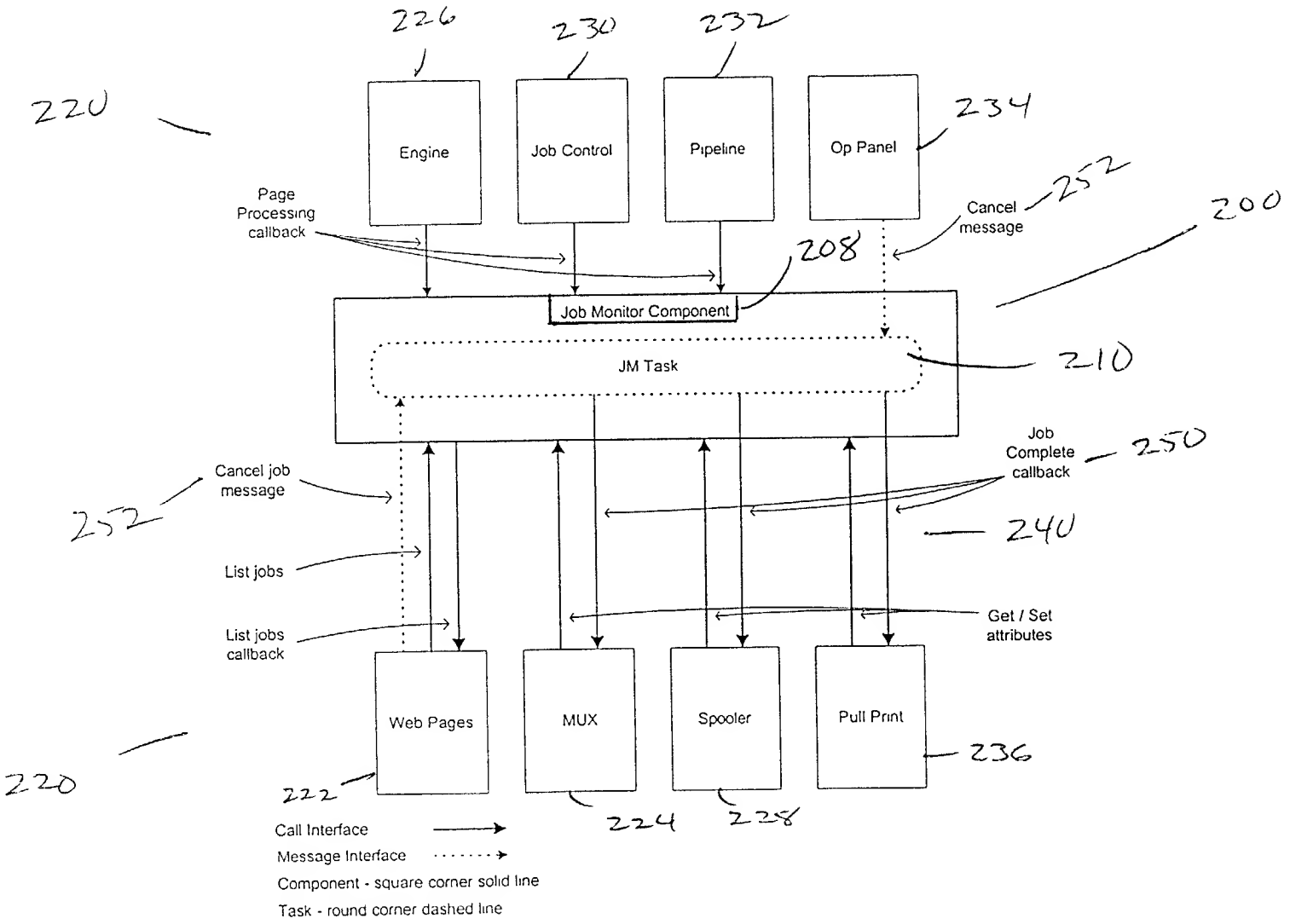
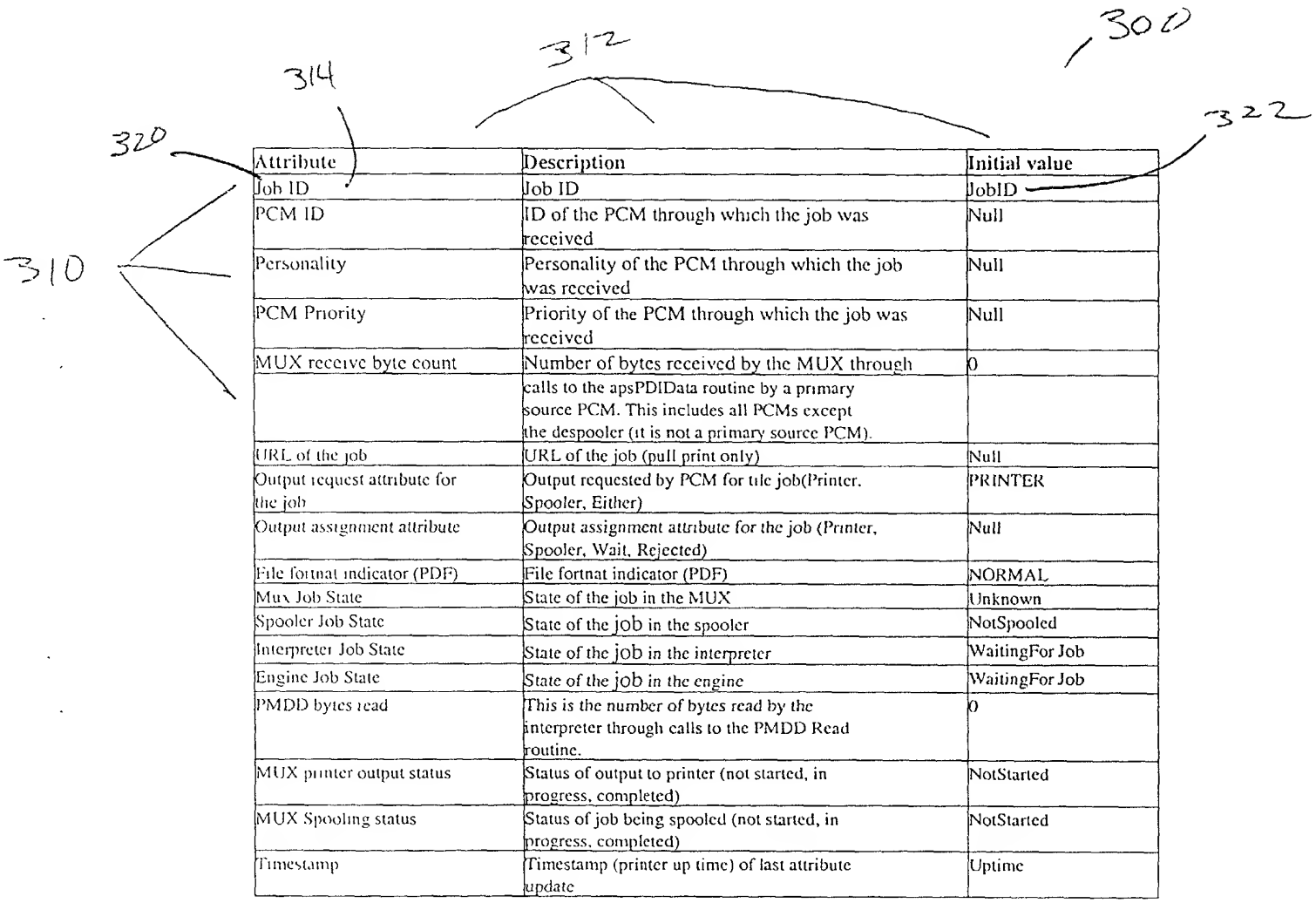


Fig. 2

TOSTO-0185260



Attribute	Description	Initial value
Job ID	Job ID	JobID
PCM ID	ID of the PCM through which the job was received	Null
Personality	Personality of the PCM through which the job was received	Null
PCM Priority	Priority of the PCM through which the job was received	Null
MUX receive byte count	Number of bytes received by the MUX through calls to the apsPDIData routine by a primary source PCM. This includes all PCMs except the despooler (it is not a primary source PCM).	0
URL of the job	URL of the job (pull print only)	Null
Output request attribute for the job	Output requested by PCM for the job(Printer, Spooler, Either)	PRINTER
Output assignment attribute	Output assignment attribute for the job (Printer, Spooler, Wait, Rejected)	Null
File format indicator (PDF)	File format indicator (PDF)	NORMAL
Mux Job State	State of the job in the MUX	Unknown
Spooler Job State	State of the job in the spooler	NotSpooled
Interpreter Job State	State of the job in the interpreter	WaitingFor Job
Engine Job State	State of the job in the engine	WaitingFor Job
PMDD bytes read	This is the number of bytes read by the interpreter through calls to the PMDD Read routine.	0
MUX printer output status	Status of output to printer (not started, in progress, completed)	NotStarted
MUX Spooling status	Status of job being spooled (not started, in progress, completed)	NotStarted
Timestamp	Timestamp (printer up time) of last attribute update	Uptime

Fig. 3

POSITA-0545960

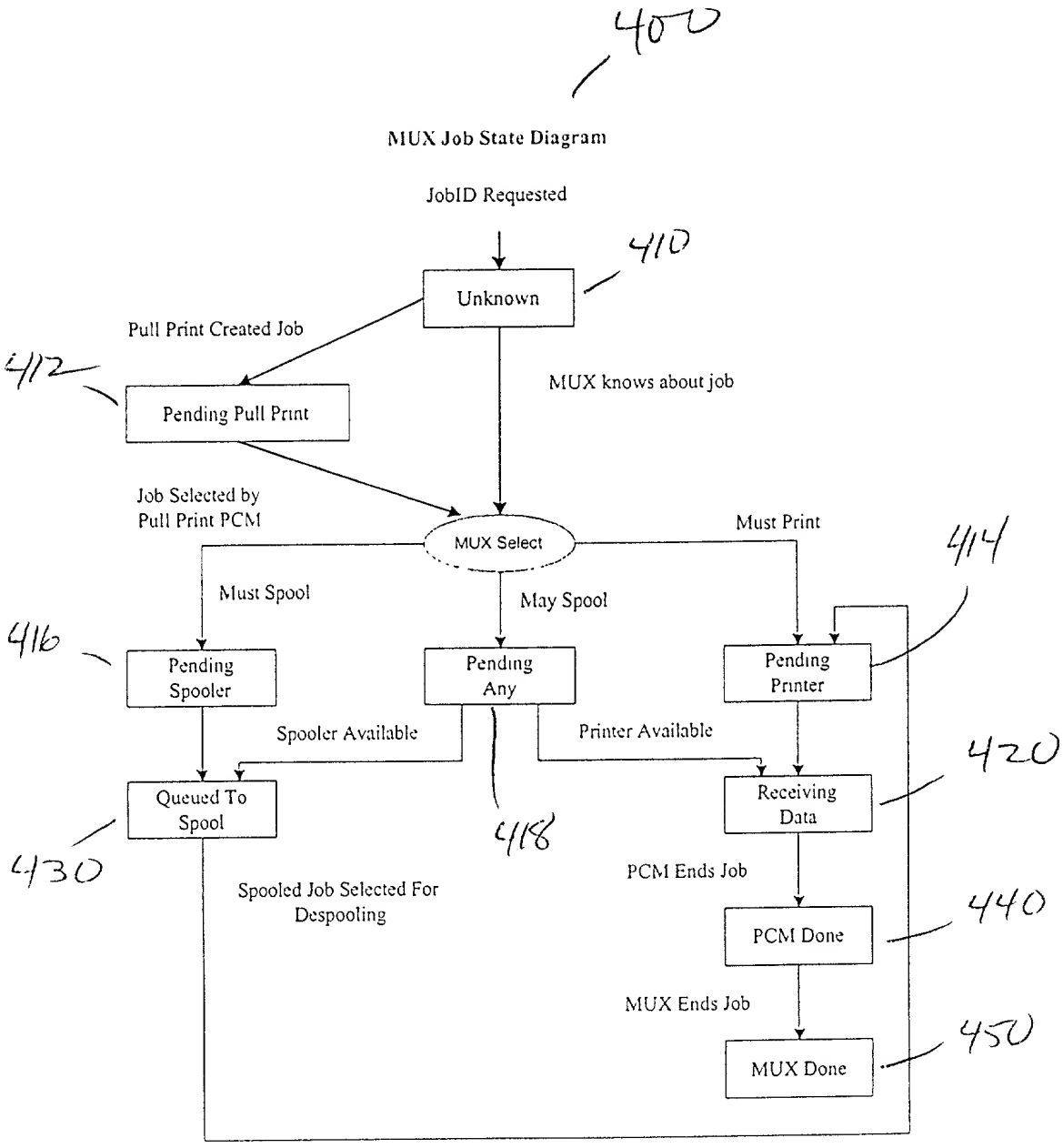


Fig. 4

FOSTER-00454550

500

Spooler State Diagram

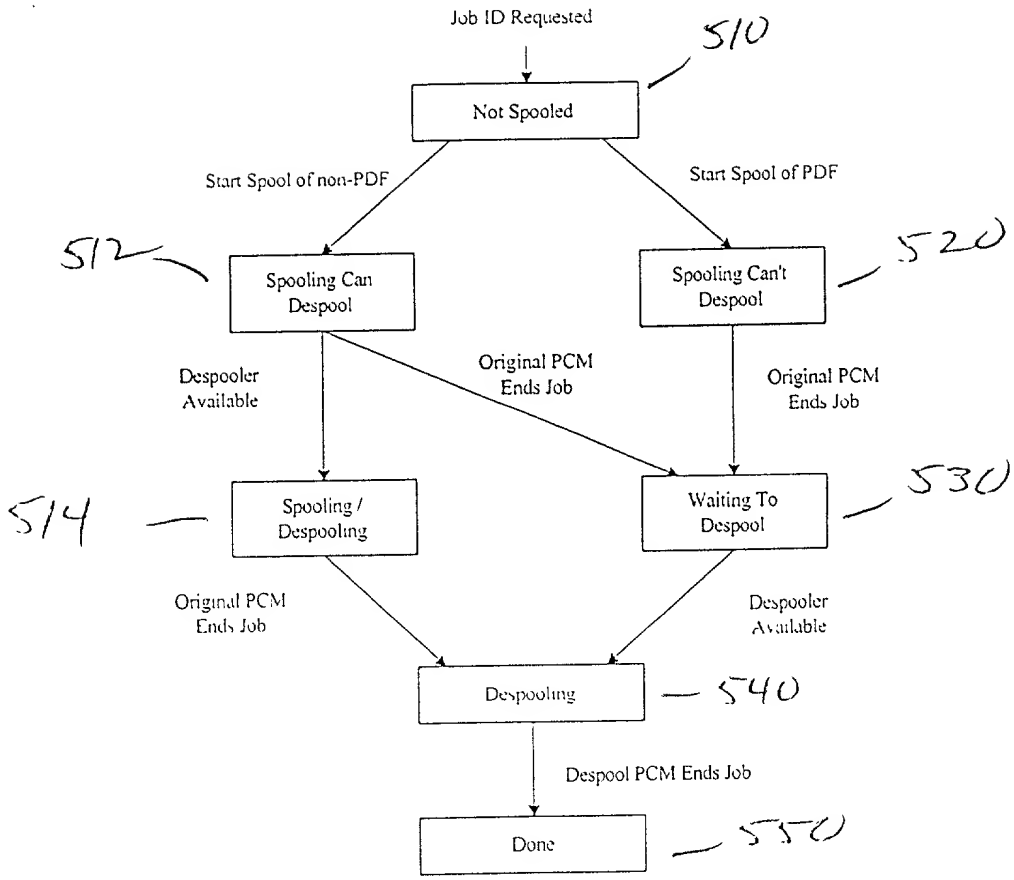


Fig. 5

POSITA 04/18 SNGD

600

Interpreter Job State Diagram

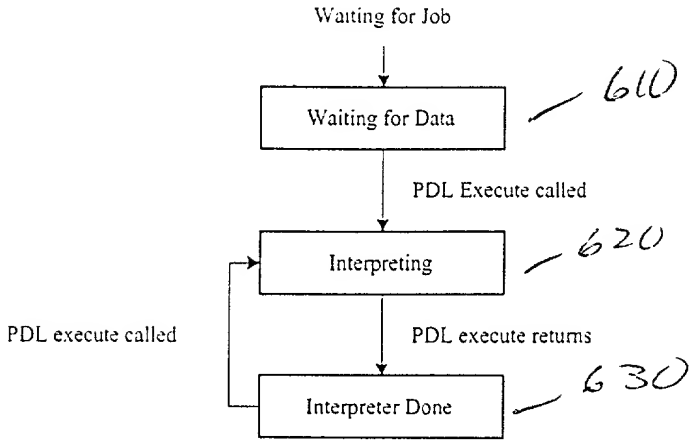


Fig. 6

700

Engine Job State Diagram

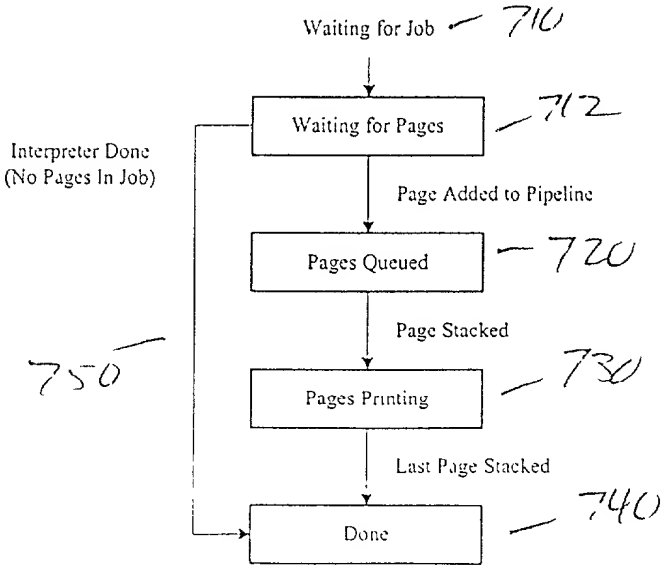


Fig. 7

800

814 Process	810 From State	812 To State	820 Changed by
MUX	Unknown	Pending Printer	MUX OS Thread
	Unknown	Pending Any	MUX OS Thread
	Unknown	Pending Spooler	MUX OS Thread
	Unknown	Pending Pull Print	Pull Print wppSubmitJob
	Pending Printer	Receiving Data	MUX OS Thread
	Pending Any	Receiving Data	MUX OS Thread
	Pending Spooler	Queued to Spool	MUX OS Thread
	Pending Any	Queued to Spool	MUX OS Thread
	Queued to Spool	Pending Printer	MUX OS Thread
	Receiving Data	Done	MUX apsPDIEnd
Spooler	Not Spooled	Spooling Can Despool	sp-open
	Spooling Can Despool	Spooling / Despooling	sp-eoj
	Spooling Can Despool	Waiting to Despool	sp-eoj
	Spooling / Despooling	Despooling	Despool PCM
	Not Spooled	Spooling Can't Despool	sp-open
	Spooling Can't Despool	Waiting to Despool	sp-eoj
	Waiting to Despool	Despooling	Despool PCM
	Despooling	Done	Despool PCM
Interpreter	any	any	event announce callback
Engine	any	any	event announce callback

Fig. 8

910 912 914 920

Attribute ID	Type	Rel.	RO/ RW	IPP	SNMP	Notes
JM-ATTR JOB-ID	Iht	1	RO			Set by JM.
JM-ATTR-PCM ID	Int (Enum)	I	RW			Set by MUX
JM-ATTR PCM-PERSONALITY	Int (Enum)	1	RW			Set by MUX
JM-ATTR-PCM-PRIORITY	Int	1	RW			Set by MUX.
JM-ATTR-SPOOLED-BYTES	Int	I	RW			Set by MUX
JM-ATTR-URL	String	1	RW			Set by WPP
JM-ATTR-OUTPUT-REQUEST	Int (Enum)	1	RW			Set by MUX Enum will contain PRINTER, SPOOLER, WAIT, REJECTED. Others will be added if needed
JM-ATTR-FILE-FORMAT	Int (Enum)	1	RW			Set by MUX Enum will contain at least UNKNOWN and PDF. Others will be added as needed
JM-ATTR-MUX-STATE	Int (Enum)	1	RW			Set by MUX Enum will be created to list the possible states.
JM-ATTR-SPOOL-STATE	Int (Enum)	1	RW			Set by SPOOLER Enum will be created to list the possible states.
JM ATTR INTERPRETER STATE	Int(Emnn)	1	RO			Set by JM. Enum will be created to list the possible states
JM-ATTR-ENGINE-STATE	Int (Enum)	1	RO			Set by JM Enum will be created to list the possible states.
JM-ATTR-JOB-STATE	Int (bitfields or array of int's?)	1	RO	Yes	Yes	Done by JM Convert from JM-ATTR * STATE attributes
JM ATTR-PAGES-SUBMITTED	Int	1	RO			Set by JM This is the number of pages submitted into the pipeline by the interpreter (incremented once for each page, regardless of the copy count)
JM-ATTR-TOTAL-PAGES IN JOB	Int	1	RO			Set by JM This is the total number of pages, including all copies of each page, which have been submitted into the pipeline
JM ATTR TOTAL PAGES STACKED	Lnt	1	RO			Set byJM. This is tile total number of pages that have been stacked by the engine (incremented for each copy of a page).
JM-ATTR-RECEIVED-BYTES	Int	1	RW			Set by MUX. The MUX should ensure that this is not doubled when we are spooling (ie, the bytes should only be counted when they are received from the host, not from the spooler).
JM-ATTR-BYTES-PROCESSED	Lnt	1	RW			Set by PMDD
JM-ATTR-LAST-MODIFIED	Int	1	RO			Set by JM This is a timestamp (or count) used to tell if data modified since last checked this value.
JM ATTR-CANCEL-INITIATOR	Inl (Enmn)	1	RW	Yes	Yes	Set by requestel' of cancel. This is who requested the cancel (operator, tlser, device)
JM-ATTR-CANCEL	Lnt	1	RW			Set by JM (or IPDS?) 0 if not cancelling, 1 if cancel initiated
JM-ATTR-OPEN COUNT	Iht	1	RO			Set by JM. Not read by others. Used to know how many people have this handle open (have not called destroy yet).
JM-ATTR-COPY-SET	Int	1	RO			Set by JM. This is the set for the last page stacked if doing collation
JM-ATTR-COPY-COUNT	Int	1	RO			Set by JM This is the copy count for the last page stacked if doing collation.
JM-ATTR-COLLATE	Int	1	RW			True if collated job. fillse otherwise.
JM-ATTR-DUPLEX	Int	1	RW			True if job is duplex, false otherwise.

Fig. 9